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ABSTRACT

An electro luminescence device comprises a compound semiconductor crystal substrate comprising a Group 12 (2B) element and a Group 16 (6B) element in a periodic table. It is produced by providing a substrate having a low dislocation density or a low inclusion density; forming a pn junction by thermally diffusing an element converting the substrate of a first conduction type into the one of a second conduction type from a front surface of the substrate; and forming electrodes on front and rear of the substrate. A diffusion source including an element converting the substrate of a first conduction type into the one of a second conduction type is disposed on the front surface of the substrate, preventing forming of a defect compensating an impurity level which is formed in the substrate by the element during a diffusion process, and gettering impurity on the front surface of the substrate by the diffusion source. Thereby, the conduction type of the Group II-VI compound semiconductor can be controlled and the electro luminescence device having superior light emission characteristics can be stably produced.